

Figure 1. Illustration showing minimum abutment setback distances in reference to (1) the channel bank and (2) the projection of the spill-through abutment slope that provides a minimum 10-foot distance from any point on the channel bank or bed.

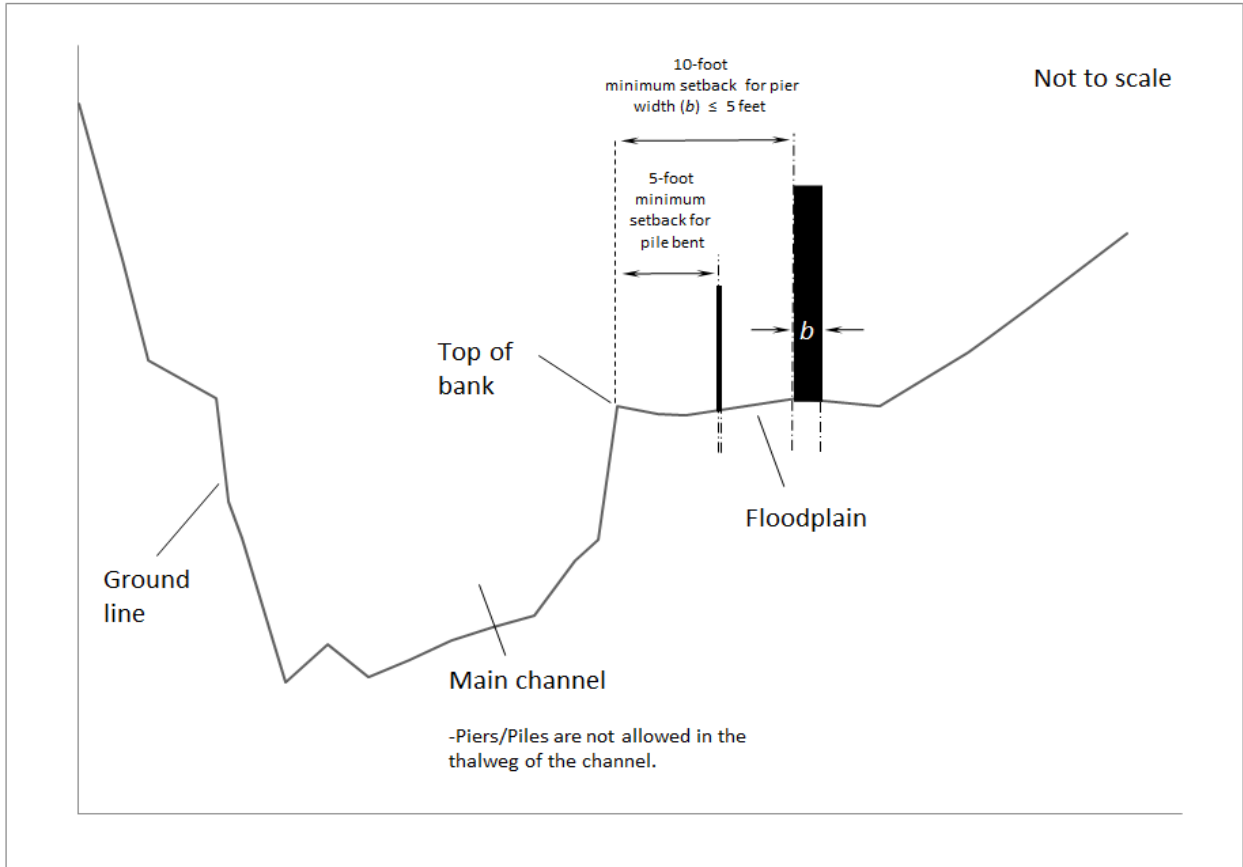


Figure 2. Illustration showing minimum setback distances for pile bents and piers located on the floodplain in reference to the channel bank.

Table 1. Minimum substructure setback distance from the top of the channel banks for substructures located on the floodplain above ground (Figure 5).

Substructure Type	Substructure Width (<i>b</i>) Above Ground (feet)	Substructure Location	Setback Distance from Top-of-Bank to Face of Substructure (feet)
Piers, such as drilled shafts or piers requiring excavation	$b \leq 5$	Floodplain	10
Piers, such as drilled shafts or piers requiring excavation	$b > 5$	Floodplain	7.5
Pile bent	$b \leq 2$	Floodplain	5

NOTE: All setback distances referenced are based on hydraulic conditions. They do not account for other features such as shared use paths, sidewalks, trails, etc.